

CITY OF ALAMEDA

Memorandum

To: Honorable Mayor and
Members of the City Council

From: John A. Russo
City Manager

Date: June 28, 2011

Re: Adopt a Resolution Approving the Purchase of a Replacement Disk
Storage Solution and Implementing Server Virtualization, at a Cost Not
to Exceed \$230,000 (Requires Four Affirmative Votes)

BACKGROUND

The City's existing EMC Storage Area Network (SAN) system is reaching the end of its useful life in 2011. In addition, many of the City's core servers have met their life expectancy and disk space capacity limits. System backups are stored on unreliable legacy magnetic tapes. Email and other applications must be upgraded to run supported software versions.

DISCUSSION

Staff recommends implementing a comprehensive Storage Area Network that will increase the amount of data storage space and reduce server replacement cost through virtualizing servers. Virtualization moves many physical server units into one larger server unit. The City currently has more than 25 servers.

This proposed solution will have the ability to reduce the number of physical servers and reduce other associated operational costs (electricity, air conditioning, room space). With virtualization, staff will be able to upgrade email and other software applications as well as increase storage capacity. In addition, staff is including a second Data Archiving device with replication for backup and disaster recovery; this will be located at the Alameda Municipal Power data center.

Staff researched various solutions for a comprehensive storage platform that integrates with the City's existing environment and allows future technology growth. Staff received four proposals and recommends Dell's midrange system, Compellent. Key features include: virtualization ability; an obsolescence-proof modular architecture which removes the need for "forklift upgrades"; and thin provisioning where space is not allocated for data writes until it's actually written, and therefore allows for enhanced space management. Compellent is one of the fastest-growing external storage companies in the world, and was acquired by Dell in the first quarter of 2011, making Compellent a leader in the industry.

CC/ARRA/CIC
Agenda Item #3-B
06-28-11

The total proposed usable SAN space at the City's primary location after calculating Redundant Array of Independent Disks (RAID) configurations is eight terabytes (TB). At the Disaster Recovery location, the proposed usable SAN space after calculating RAID configuration is 16TB. RAID allows for the system to run uninterrupted during the event of a hard drive failure. A replacement disk drive can be substituted without any down time to the system.

The equipment will be purchased and installed by KIS of Fremont, which has implemented many of the City's network solutions.

FINANCIAL IMPACT

The total cost of the Compellant Replacement Disk Storage Solution, including installation, will not exceed \$230,000. The funds for this project are budgeted in the Information Technology Fund. Alameda Municipal Power's proportionate share of this total is \$30,000.

RECOMMENDATION

Adopt a Resolution authorizing the purchase of a replacement disk storage solution and implementing server virtualization, at a cost not to exceed \$230,000 (requires four affirmative votes).

Respectfully submitted,



Leon King
Information Technology Division Manager

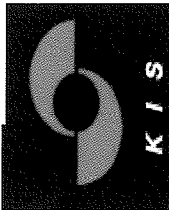
Approved as to funds and account,



Fred Marsh
Controller

Exhibits:

1. KIS Statement of Work – on file in the City Clerk's Office
2. KIS Quote



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City of Alameda

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 lking@ci.alameda.ca.us

KIS Quote No. 04202011 - VMWare Advanced Acceleration Kit			Quote valid for Thirty Days	
Item	Quantity	Description	Price	Extension
1	Lot	Vmware Advanced for 8 sockets, with one VCenter Standard, plus Training Credits for one person for one Skills for Operators course	\$25,327.70	\$ 25,327.70
2	Lot	Veeam Backup and Replication SW, Enterprise Edition	\$4,187.60	\$ 4,187.60
3	Lot	Four HP DL360 servers and 1 HP Rack with accessories	\$26,756.41	\$ 26,756.41
4	Lot	3 x Cisco SG300-20 switches	\$1,329.90	\$ 1,329.90
5	Lot	Compellent SAN for primary site (installation included)	\$65,199.50	\$ 65,199.50
6	Lot	Compellent SAN for DR site (installation included)	\$52,508.90	\$ 52,508.90
7		Professional Services, per Statement of Work	\$30,000.00	\$ 30,000.00
Detailed amounts for Tax and Shipping, where applicable, are listed on the individual tab, and summarized here.			Overall Subtotal:	\$ 205,310.01
			Tax	\$ 6,441.86
			Shipping:	\$ 2,515.00
			Grand Total	\$ 214,266.86

CITY OF ALAMEDA RESOLUTION NO. _____

AUTHORIZING OPEN MARKET PURCHASE FROM KIS PURSUANT TO
SECTION 3-15 OF THE ALAMEDA CITY CHARTER FOR A STORAGE AREA
NETWORK IN AN AMOUNT NOT TO EXCEED \$230,000

Approved as to Form
City Attorney

WHEREAS, the City's existing EMC Storage Area Network (SAN) system is reaching the end of its useful life in 2011; and

WHEREAS, many of the City's core servers have met their life expectancy and disk space capacity limits; system backups are stored on unreliable legacy magnetic tapes; and email and other applications must be upgraded to run supported software versions; and

WHEREAS, a comprehensive SAN will increase the amount of data storage space; reduce server replacement cost through virtualizing servers; enable the City to upgrade its business software applications; and allow for backup and disaster recovery through the inclusion of a data archiving device with replication; and

WHEREAS, Dell's Compellent comprehensive storage platform will integrate with the City's existing computer environment and allow for future technology growth; and

WHEREAS, the equipment will be purchased and installed by KIS of Fremont, which has implemented many of the City's network solutions; and

WHEREAS, there are sufficient funds available in the FY 2010-2011 budget for the purchase of this equipment, and these funds are not budgeted in the FY 2011-2012 budget; and

WHEREAS, Art. III Sec. 15 of the City Charter provides that the City Council, by four affirmative votes, can authorize an open market purchase without prior advertising if it determines that great necessity or emergency requires immediate action;

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Alameda, pursuant to Art. III Sec. 15 of the City Charter, that a great necessity requires immediate action and the City is hereby authorized to purchase the comprehensive Storage Area Network solution at a cost not to exceed \$230,000.

* * * * *

I, the undersigned, hereby certify that the foregoing Resolution was duly and regularly adopted and passed by the Council of the City of Alameda in a regular meeting assembled on the 28th day of June, 2011, by the following vote to wit:

AYES

NOES:

ABSENT:

ABSTENTIONS:

IN WITNESS, WHEREOF, I have hereunto set my hand and affixed the seal of said City this 29th day of June, 2011.

Lara Weisiger, City Clerk
City of Alameda